

IN THE UNITED STATES DISTRICT COURT
FOR THE DISTRICT OF DELAWARE

INTELLECTUAL VENTURES I LLC and
INTELLECTUAL VENTURES II LLC,

Plaintiffs,

v.

MOTOROLA MOBILITY, LLC,

Defendant.

Civil Action No. 11-cv-908-SLR

FILED UNDER SEAL

DECLARATION OF MARC BELLOLI
IN SUPPORT OF INTELLECTUAL VENTURES'
REPLY BRIEF ON CLAIM CONSTRUCTION

I, Marc Belloli, declare as follows:

1. I submit this declaration in connection with Intellectual Ventures' Reply Brief on Claim Construction.
2. I am over the age of 21 years and I am competent to make this declaration. Unless otherwise stated, I submit the following statements based on my own personal knowledge or based on factual investigation I have conducted. If called upon to testify as to the truth of the following statements, I could and would competently testify thereto.
3. I am a partner at Feinberg Day Alberti & Thompson LLP, counsel for Intellectual Ventures I LLC and Intellectual Ventures II LLC.
4. Attached as Exhibit 39 is a true and correct copy of excerpts from the July 24, 2013 deposition of Hugh Smith, Ph.D.
5. Attached as Exhibit 40 is a true and correct copy of excerpts from the Expert Report of Dr. Martin Rinard Regarding the Invalidity of U.S. Patent No. 7,810,144.

6. Attached as Exhibit 41 is a true and correct copy of excerpts from the file history of App. No. 09/719,290, an application related to the '462 patent.

7. Attached as Exhibit 42 is a true and correct copy of the Declaration of Darran Cairns for Reply Markman Briefing of U.S. Patent No. 6,412,953

8. Attached as Exhibit 43 is a true and correct copy of a screen shot of real estate in Wilmington, Delaware that was obtained from www.century21.com.

9. Attached as Exhibit 44 is a true and correct copy of excerpts from the July 3, 2013 deposition of Jerry D. Gibson, Ph.D.

10. Attached as Exhibit 45 is a true and correct copy of excerpts from the July 17, 2013 deposition of Randy H. Katz.

11. Attached as Exhibit 46 is a true and correct copy of excerpts from the file history of the '450 patent.

12. I declare under penalty of perjury under the laws of the United States of America that the foregoing is true and correct.

Executed at Menlo Park, California
on this 23rd day of August, 2013

/s/ Marc Belloli
Marc Belloli

EXHIBIT 39

REDACTED

EXHIBIT 40

REDACTED

EXHIBIT 41



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant: Kumar

Examiner: Huy D. Nguyen

Serial No.: 09/719,290

Art Unit: 2681

Filed: 07 December 2000

Date: March 23, 2004

For: PORTABLE COMPUTING, COMMUNICATION AND ENTERTAINMENT
DEVICE WITH CENTRAL PROCESSOR CARRIED IN A DETACHABLE
HANDSET

RECEIVED

MAR 31 2004

Technology Center 2600

RESPONSE

This letter is responsive to the Office Action mailed 24 November 2003 requesting a one month extension of time and paying the corresponding fee. Please charge any additional fee or fee deficiency to Deposit Account 15-0450.

This response is made under the revisions to 37 CFR 1.121, mandatory from 30 July 2003.

The response has the following parts:

Amendments to the Specification – none made;

Amendments to the Claims – beginning on page 2;

Amendments to the Drawings – none made; and

Remarks – beginning on page 5.

03/30/2004 RMEBRAHT 00000133 150450 09719290

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55.00 DA

Ser. No: 09/719,290

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Response to Office Action of 11/24/03

Atty Docket 117210-27

AMENDMENTS TO THE CLAIMS

Please amend the claims as they currently stand so that they are in accord with the following listing of the claims:

1. (Currently Amended) A portable computing, communication and entertainment device comprising:

a detachable handset unit sized for handheld grasping and including a processor and a plurality of first circuits, said processor controlling the operation of said first circuits;

a portable docking display unit dimensioned to dock with ~~receive docking of~~ said detachable handset unit, and said portable docking display unit including a first display and a plurality of second circuits; and wherein,

~~—~~ said processor controlling the operation of at least one of said second circuits and said first display when said detachable handset unit is docked with said docking display unit.

a
2. (Original) A device, as set forth in claim 1, wherein said processor generates control signals, and said portable docking display unit includes a platform dimensioned to accept docking of the detachable handset unit and a first electrical connector for receiving said control signals.

3. (Original) A device, as set forth in claim 2, wherein said portable docking display unit further includes a second electrical connector for removably engaging said first electrical connector when said detachable handset unit and said portable docking display unit are docked.

4. (Original) A device, as set forth in claim 3, wherein said detachable handset unit further includes a memory, a wireless communication circuit, an audio interface circuit, a first microphone, a first speaker, and a power supply.

5. (Original) A device, as set forth in claim 4, wherein said docking display unit further includes a wired communication circuit and a communication jack.

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Response to Office Action of 11/24/03

Atty Docket 117210-27

6. (Original) A device, as set forth in claim 5, wherein said docking display unit further includes a second speaker and a second microphone.

7. (Original) A device, as set forth in claim 6, wherein said docking display unit includes a power jack.

8. (Original) A device, as set forth in claim 7, wherein said docking display unit includes a first pen-input panel.

9. (Original) A device, as set forth in claim 8, wherein said docking display unit is mounted in a vehicle.

a 10. (Original) A device, as set forth in claim 1, wherein said detachable handset unit includes a second display.

11. (Original) A device, as set forth in claim 10, wherein said detachable handset unit includes a second pen-input panel.

12. (Original) A device, as set forth in claim 11, wherein said detachable handset unit includes a first keyboard and said docking display unit includes a second keyboard.

13. (Original) A device, as set forth in claim 12, wherein said detachable handset unit includes a jack to connect to an external headphone.

14. (Original) A device, as set forth in claim 13, wherein said detachable handset unit includes a jack to connect to an external headset.

15. (Original) A device, as set forth in claim 14, wherein said detachable handset unit includes at least one of an optical transmitter and an optical transceiver.

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Response to Office Action of 11/24/03

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- a* 16. (Original) A device, as set forth in claim 15, wherein said detachable handset unit includes a Global Positioning System receiver.
-

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Atty Docket 117210-27

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REMARKS

Claim status

Claims 1-16 were pending in the application at the time of the current Office Action. All stand rejected as being obvious over prior art. Claims 1 and 3 are amended herein solely for the purpose of clarifying the form of the claim. Claims 1-16 are currently pending in the application.

Section 102 rejections

There are no present rejections under Section 102.

Section 103 rejections

In the current Office action, claims 1-5, 10-14, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grewe et al. (U.S. Patent No. 5,625,673), hereafter referred to as "Grewe '673", in view of Jones, Jr. (U.S. Patent No. 5,974,334), hereafter referred to as "Jones '334".

In the current Office action, claims 6-9, 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over Grewe '673 in view of Jones '334 and still further in view of Pardo (U.S. Patent No. 6,266,539) hereafter referred to as "Pardo '539".

Applicants respectfully traverse the foregoing rejections in view of the above pending claims and for reasons set forth hereafter.

Independent claim 1 recites a portable computing, communication and entertainment device comprising a detachable handset unit sized for handheld grasping. The detachable handset unit includes a processor and a plurality of first circuits such that the processor controls the operation of the first circuits. The device also comprises a portable docking display unit dimensioned to receive docking of the detachable handset unit. The portable docking display unit includes a first display and a plurality of second circuits. When the detachable handset unit is docked to the portable docking display unit, the processor of the detachable handset unit not only controls the first circuits of the detachable handset unit but also controls the operation of at least one of the second circuits and the first display of the portable docking display unit. In the claimed invention, the portable docking display unit can be a "dummy" unit that cannot operate

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unless the detachable handset unit is docked to the portable docking display unit. The purpose of docking the detachable handset unit to the portable docking display unit is to extend the capability of the detachable handset unit to function more like a portable laptop computer, for example.

It is respectfully submitted that neither Grewe '673 nor Jones '334, nor the combination of the two teach or suggest the claimed invention. Specifically, Grewe '673 and Jones '334 do not teach or suggest a detachable handset unit, having a processor, to control the operation of not only circuits within the detachable handset unit, but also to control the operation of at least one of a display of the portable docking display unit and circuits of the portable docking display unit when the handset unit is docked to the docking display unit, as does the claimed invention.

Instead, Grewe '673 describes interconnecting a PDA with some other accessory to enhance the PDA. (Abstract) For example, Grewe '673 describes mating a cellular telephone to a PDA simply to provide communication between the cellular telephone and the PDA. (Fig. 1 and Fig. 2) The cellular telephone has its own processing capability and can be operated independently of the PDA. Likewise, the PDA has its own processing capability and can be operated independently of the cellular telephone. (column 1, lines 57-64) Grewe '673 does not teach or suggest, for example, using a processor of the cellular telephone to control operation of any circuitry or display of the PDA. In the claimed invention, the processor of the handset unit is used to control the operation of at least one of a display of the portable docking display unit and circuits of the portable docking display unit. The claimed invention does not require a processor in the portable docking display unit as does each of the PDA and cellular telephone of Grewe '673. In the claimed invention, when the handset unit is docked to the portable docking display unit, the processor of the handset unit provides processing capability for the docking display unit. Similarly, none of the other embodiments described in Grewe '673 teach or suggest using a processor of a hand-held device to control parts of another device having a display, when docked.

Jones '334 describes a PDA having a multi-positional handset. The PDA has a base with a recessed handset cradle and a handset with a shape complementary to the configuration of the cradle. (column 3, lines 8-19) The handset docks to the PDA base simply to provide power to the handset (i.e., to charge a battery of the handset). (column 4, lines 11-30) Jones '334 does not

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teach or suggest using a processor of the handset to control the operation of any part of the PDA or vice versa. Jones '334 simply describes docking the handset to the PDA base in a flush configuration for mobile use, and in a non-flush configuration for office use.

In view of at least the foregoing, it is respectfully submitted that independent claim 1 defines allowable subject matter. Since claims 2-15 depend either directly or indirectly from claim 1, it is respectfully submitted that dependent claims 2-15 define allowable subject matter as well.

Applicant respectfully traverses the Examiner taking Official Notice that GPS is very well known in the art for monitoring the position of an object such that it would have been obvious to one of ordinary skill in the art to include GPS in a handset that is capable of docking to and controlling the operation of a portable docking display unit. Applicant has argued above that the device of claim 1 is not obvious. Therefore, the device of claim 1 with GPS is not obvious. Since claim 16 depends indirectly from claim 1, it is respectfully submitted that dependent claim 16 defines allowable subject matter.

Accordingly, the applicant respectfully requests reconsideration of the rejections based on the arguments made above. After such reconsideration, it is urged that allowance of all claims will be in order.

Respectfully submitted,
Hahn Loeser + Parks, LLP



Scott M. Oldham
Registration No. 32,712
Attorney for Applicant

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EXHIBIT 42

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EXHIBIT 43



Wilmington, DE

CENTURY21 Real Estate > Delaware > Wilmington > Homes for Sale

Your Current Search

Homes for Sale
Wilmington, DE

Save Search

Refine Your Search

New Location

Wilmington, DE

Add Surrounding Areas

Area Schools

Search by Schools

☐ Show Top Rated

☐ Show Your Schools

Price

Any

Beds

Any

Baths

Any

Square Footage

Any

MLS #

MORE SEARCH
OPTIONS

Search by Amenities,
Listing Types
and Listing Activities

PROPERTIES

AGENTS

OFFICES

Sort By: Price High-Low



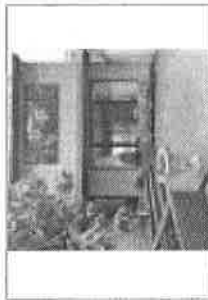
Per Page:

10



Page:

10



\$385,000

10 Brandywine Falls Rd
Wilmington, DE 19806

3 Beds

2 Full Baths

1 Half Bath

Courtesy Of Long & Foster Real Estate

21 Images



\$385,000

5 Majestic Ct
Wilmington, DE 19810

4 Beds

2 Full Baths

2,400 Sq. Ft

2 Half Baths

Listed By CENTURY 21 Alliance

25 Images



\$379,900

127 Wembley Rd
Wilmington, DE 19808

4 Beds

2 Full Baths

3,000 Sq. Ft

1 Half Bath

Courtesy Of RedMax Sunset Realty

17 Images



\$379,500

1 Sparrow Court

Wilmington, DE Real Estate & Homes for Sale - 821 Listings For

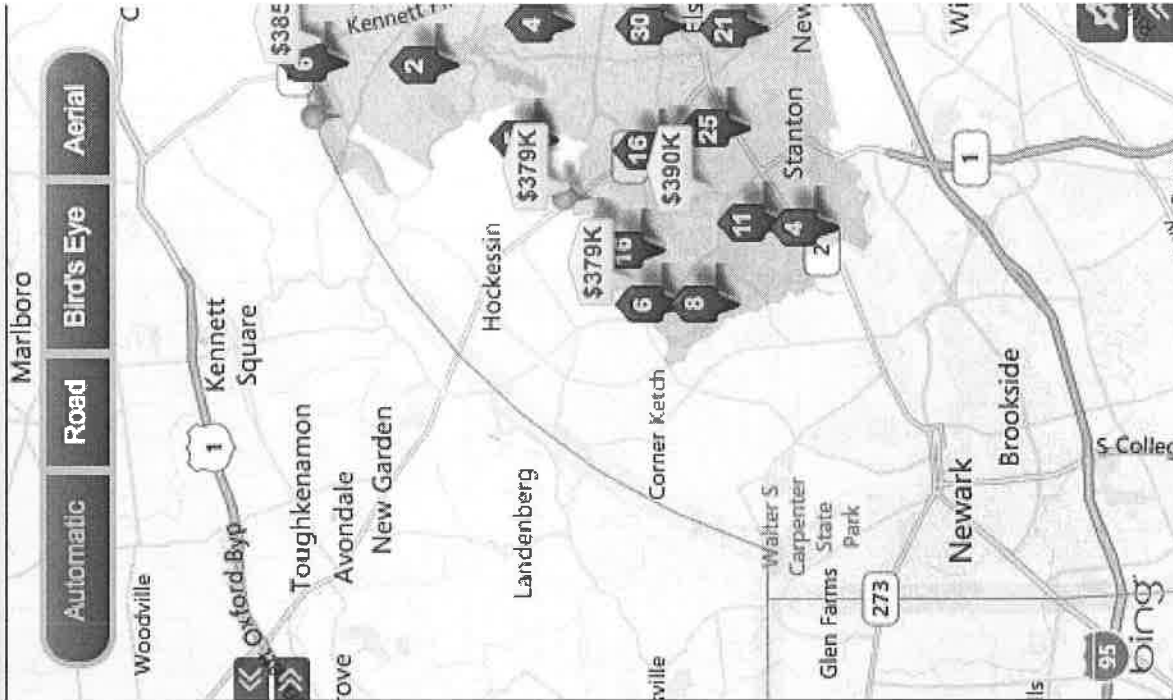


EXHIBIT 44

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EXHIBIT 45

In The Matter Of:

INTELLECTUAL VENTURES I LLC

v.

MOTOROLA MOBILITY, LLC

RANDY H. KATZ, Ph.D. - Vol. 1

July 17, 2013

MERRILL CORPORATION

LegalLink, Inc.

135 Main Street
4th Floor
San Francisco, CA 94105
Phone: 415.357.4300
Fax: 415.357.4301

RANDY H. KATZ, Ph.D., - 7/17/2013

Page 42	Page 44
<p>1 Q. You understand that Motorola itself brought</p> <p>2 the inter partes reexam in, before the PTO on the '450</p> <p>3 patent, correct?</p> <p>4 A. I am aware of that.</p> <p>5 Q. Are you aware whether or not they made an</p> <p>6 argument whether a CPE station should be considered to</p> <p>7 be something different than a CPE?</p> <p>8 A. I don't recall the details of the arguments</p> <p>9 that were made.</p> <p>10 Q. So you don't dispute that, as far as just for</p> <p>11 the term "customer premises equipment (CPE)," there is a</p> <p>12 precise definition in Table 8 -- or Table 1 in column 8</p> <p>13 of the patent.</p> <p>14 A. May I look at the patent?</p> <p>15 MR. SANDERS: Objection, form.</p> <p>16 BY MR. ALBERTI:</p> <p>17 Q. Yes, absolutely. If you turn to column 8.</p> <p>18 A. It's a lot of pages.</p> <p>19 Q. Column 8, Table 1. And I'll try to walk you</p> <p>20 through this piecemeal. First of all, in column 8, do</p> <p>21 you see there's a Section II entitled "Definitions"?</p> <p>22 A. Yes.</p> <p>23 Q. Below that, it reads, "Table 1 below defines</p> <p>24 common telecommunications terminology. These terms are</p> <p>25 used throughout the remainder of the description of the</p>	<p>1 Motorola's proposed construction over IV's proposed</p> <p>2 construction is the fact that the term includes the</p> <p>3 additional word "stations," true?</p> <p>4 A. "Station" to distinguish it from regular plain</p> <p>5 old ordinary CPEs.</p> <p>6 Q. Do you agree that a handset would be a CPE?</p> <p>7 MR. SANDERS: Objection, form.</p> <p>8 THE WITNESS: What exactly do you mean by</p> <p>9 "handset"?</p> <p>10 BY MR. ALBERTI:</p> <p>11 Q. Do you have an understanding of -- do you ever</p> <p>12 use the term "handset"?</p> <p>13 A. You mean like a telephone?</p> <p>14 Q. Yes.</p> <p>15 A. [Witness indicates.] One of the things that</p> <p>16 you sort of pick up and put to your ear with a, with a</p> <p>17 dial on it and that kind of thing?</p> <p>18 Q. You've never referred to a smartphone as a</p> <p>19 "handset"?</p> <p>20 A. Well, when you said, actually, when you said</p> <p>21 "handset," I immediately had the image of a push button</p> <p>22 phone with a, you know, cradle and a little curly-cue</p> <p>23 wire, you know, connecting it to that, actually. That's</p> <p>24 what I thought you meant by the term "handset."</p> <p>25 Q. In fact, that was the original definition of a</p>
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<p>1 invention." True?</p> <p>2 A. Yes.</p> <p>3 Q. And then you'll see there's a Table 1 with a</p> <p>4 left-hand column that reads "Term" and a right-hand</p> <p>5 column that reads "Definition."</p> <p>6 A. Yes.</p> <p>7 Q. If you go about halfway down the page, you'll</p> <p>8 see there's "customer premises equipment (CPE)" under</p> <p>9 the "Term" column, and then the definition reads, "CPE</p> <p>10 refers to devices residing on the premises of a customer</p> <p>11 and used to connect to a telephone network, including</p> <p>12 ordinary telephones, key telephone systems, PBXs, video</p> <p>13 conferencing devices and modems."</p> <p>14 A. I see that.</p> <p>15 Q. And you don't dispute that that's a deliberate</p> <p>16 definition given to the term "CPE" in the patent, true?</p> <p>17 MR. SANDERS: Objection, form.</p> <p>18 THE WITNESS: I do not.</p> <p>19 BY MR. ALBERTI:</p> <p>20 Q. And as far as you're concerned, for the common</p> <p>21 understanding of "CPE," that's fair definition, right?</p> <p>22 MR. SANDERS: Objection to form.</p> <p>23 THE WITNESS: I do.</p> <p>24 BY MR. ALBERTI:</p> <p>25 Q. So your main position on the, on supporting</p>	<p>1 handset, came from the --</p> <p>2 A. You pick it up in your hand and you put it</p> <p>3 next to your ear and mouth.</p> <p>4 Q. And you're referring to -- again, because this</p> <p>5 is, the transcript will be separate from the video, but</p> <p>6 so when you're describing the handset, you're describing</p> <p>7 an old-fashioned phone with a speaker and a microphone</p> <p>8 that you put up to your ear and mouth and talk on, true?</p> <p>9 A. I agree.</p> <p>10 Q. That was the original usage of the word</p> <p>11 "handset" in the industry, true?</p> <p>12 A. Yes.</p> <p>13 Q. Since then, do you understand that other</p> <p>14 things such as smartphones are considered to be</p> <p>15 handsets?</p> <p>16 A. I don't know that I -- I don't, I don't agree</p> <p>17 with that. I'm not sure that I agree with that. I'm</p> <p>18 not sure that a definition of a handset includes a</p> <p>19 mobile phone.</p> <p>20 Q. Is that something you considered, necessarily,</p> <p>21 for this case?</p> <p>22 A. I'm sorry.</p> <p>23 MR. SANDERS: Objection, form.</p> <p>24 THE WITNESS: Could you say that again?</p> <p>25 BY MR. ALBERTI:</p>

12 (Pages 42 to 45)

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RANDY H. KATZ, Ph.D. - 7/17/2013

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<p>1 And what they, what they developed was</p> <p>2 technology that made use of television signals that were</p> <p>3 called instructional television frequency service, I</p> <p>4 believe, ITFS. I think that's what the acronym was. So</p> <p>5 as part of a demonstration that we did with them, they</p> <p>6 were able to make use of the University of California's</p> <p>7 instructional TV system that looks like a broadcast</p> <p>8 television, to send digital information over those</p> <p>9 television frequencies to a box that would be connected</p> <p>10 to a computer. I think you would kind of call that a</p> <p>11 cable TV box. And what that would do is to take the</p> <p>12 television signal and be able to extract from it digital</p> <p>13 information so that you could use that particular</p> <p>14 technology for high bandwidth downlink of data to a</p> <p>15 receiver over that television frequency that was</p> <p>16 broadcast broadly over, you know, really the footprint</p> <p>17 of the entire Bay Area.</p> <p>18 So that's an example of a, of sort of a cable</p> <p>19 TV processing box that had an antenna on one side, tuned</p> <p>20 to these instructional television frequencies, that</p> <p>21 would receive the signal from that but be able to</p> <p>22 extract from it -- sort of superimposed on it was</p> <p>23 digital information that could be delivered to an</p> <p>24 attached computer.</p> <p>25 Q. So it wasn't completely unheard of at the time</p>	<p>1 purposes of your questions I would prefer to have them</p> <p>2 described as "CPE stations" or . . .</p> <p>3 BY MR. ALBERTI:</p> <p>4 Q. That's fine, we can call them "CPE stations."</p> <p>5 A. Or we can just agree that, that my</p> <p>6 understanding of "CPE station" and your understanding of</p> <p>7 "CPE" for the purposes of these questions are the same</p> <p>8 or . . .</p> <p>9 Q. Yeah, I think because -- I think in some</p> <p>10 instances it's not really going to matter which</p> <p>11 construction we apply, but then in some instances it</p> <p>12 might. It's probably best for us to say if we're going</p> <p>13 to use Motorola's proposed construction, or maybe we can</p> <p>14 just give a specific example if that's easier to do</p> <p>15 that.</p> <p>16 A. Okay. A specific example would be good.</p> <p>17 Q. Okay. So let's say, for instance, we have two</p> <p>18 mobile phones that are wireless communicating with a</p> <p>19 base station, okay. And each communicates over a</p> <p>20 separate frequency band, and neither ever use the</p> <p>21 other's frequency band. Would you characterize those</p> <p>22 two mobile phones as sharing bandwidth in that scenario?</p> <p>23 MR. SANDERS: Objection, form.</p> <p>24 THE WITNESS: First of all, we are -- there</p> <p>25 are lots of, lots of variations on wireless systems, so</p>
Page 63	Page 65
<p>1 of the invention to actually have a wireless cable box,</p> <p>2 true?</p> <p>3 A. I guess what I just described was an example</p> <p>4 of one, yeah. You're right.</p> <p>5 Q. What does it mean for two or more CPEs to</p> <p>6 share wireless bandwidth?</p> <p>7 A. So --</p> <p>8 MR. SANDERS: Objection, form.</p> <p>9 THE WITNESS: -- the wireless, the wireless</p> <p>10 communications medium spans a, a range of frequencies,</p> <p>11 and we can encode information on those frequencies. And</p> <p>12 we want to be able to, if you would, slice and dice that</p> <p>13 total capacity for storing information so that it can be</p> <p>14 delivered to or received from a collection of end</p> <p>15 devices.</p> <p>16 BY MR. ALBERTI:</p> <p>17 Q. If we have a situation where we have multiple</p> <p>18 CPEs and each CPE communicates using a fixed frequency</p> <p>19 bandwidth that is not shared with any other CPE, would</p> <p>20 the CPEs collectively, would you still define them as</p> <p>21 sharing wireless bandwidth?</p> <p>22 MR. SANDERS: Objection, form.</p> <p>23 THE WITNESS: Okay, so I need to ask some</p> <p>24 questions here. You're using the terminology "CPE" as</p> <p>25 opposed to "CPE station"? Can you agree that for the</p>	<p>1 I want to make sure I understand which one we're talking</p> <p>2 about, and since we're doing a concrete example here.</p> <p>3 So are we talking about the cellular system,</p> <p>4 or are we talking about something like a wireless PBX,</p> <p>5 or are we talking about kind of a sort of mobile</p> <p>6 cordless phone system in an office? Which of the</p> <p>7 examples, you know, concrete example of a base station</p> <p>8 and sort of cell phone thing are we actually talking</p> <p>9 about?</p> <p>10 BY MR. ALBERTI:</p> <p>11 Q. Are you familiar with the AMPS system?</p> <p>12 A. The Analog North American Standard.</p> <p>13 Q. Yes.</p> <p>14 A. AMPS, yes, I have.</p> <p>15 Q. In AMPS, let's envision a system where we have</p> <p>16 a base station and multiple phones, and each phone has a</p> <p>17 fixed frequency bandwidth that only it can use and no</p> <p>18 other phone can use. And a situation where we have say</p> <p>19 two mobile phones communicating with a base station,</p> <p>20 each always using a fixed frequency band. Would you</p> <p>21 characterize that situation as the mobile phones sharing</p> <p>22 wireless bandwidth?</p> <p>23 A. So the --</p> <p>24 MR. SANDERS: Objection, form.</p> <p>25 THE WITNESS: -- the scenario that you just</p>

17 (Pages 62 to 65)

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EXHIBIT 46

PATENT
6057-40815

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Inventor:	Jacob W. Jorgensen	§	Atty.Dkt.No.:	6057-40815
		§		
Serial Number:	11/068,719	§	Examiner:	Tran, Philip B.
		§		
Filing Date:	February 28, 2005	§	Group/Art Unit:	2155
		§		
Title:	TRANSMISSION CONTROL	§	Conf. No.:	3697
	PROTOCOL/INTERNET	§		
	PROTOCOL (TCP/IP) PACKET-	§		
	CENTRIC WIRELESS POINT TO	§		
	MULTI-POINT (PtMP)	§		
	TRANSMISSION SYSTEM	§		
	ARCHITECTURE	§		
		§		

RESPONSE TO OFFICE ACTION DATED SEPTEMBER 24, 2007

Mail Stop Amendment
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

This paper is submitted in response to the Office Action of September 24, 2007.

CLAIMS

The following is a current listing of claims and will replace all prior versions and listings of claims in the application. Please amend the claims as follows:

1-12. (Canceled)

13. (Currently Amended) A method comprising:

coupling one or more subscriber customer premise equipment (CPE) stations with a base station over a shared wireless bandwidth using a packet-centric protocol; and

allocating said wireless bandwidth and system resources based on contents of packets to be communicated over said wireless bandwidth, wherein the contents of each packet include a packet header and wherein the allocating is responsive to at least one field in the packet header.

14. (Previously Presented) The method of claim 13, wherein said packet-centric protocol comprises transmission control protocol/internet protocol.

15. (Previously Presented) The method of claim 13, wherein said packet-centric protocol comprises user datagram protocol/internet protocol.

16. (Previously Presented) The method of claim 13, further comprising:

allocating said shared wireless bandwidth among said subscriber CPE stations so as to optimize end-user quality of service.

17. (Currently Amended) The method of claim 13, wherein said coupling one or more subscriber CPE stations with said wireless base station comprises using a telecommunications access method including at least one of:

a time division multiple access method;

a time division multiple access / time division duplex access method;

a code division multiple access method; and/or

a frequency division multiple access method.

18. (Previously Presented) The method of claim 13, wherein said packets to be communicated are from a data network.

19. (Previously Presented) The method of claim 18, wherein said data network comprises at least one of:

- a wireline network;
- a wireless network;
- a local area network;
- and/or a wide area network.

20. (Currently Amended) The method of claim 13, wherein said allocating is further based on ~~at least one of a packet header contents and~~ a packet payload contents.

21-44. (Cancelled)

45. (Currently Amended) A base station comprising:

an interface with a first data network configured to provide communication between said base station and a first data network using a packet-centric protocol; and

a controller configured to allocate wireless bandwidth and base station resources based on contents of packets to be communicated from and to said first data network with one or more subscriber CPE stations over a shared wireless bandwidth using said packet-centric protocol, wherein the contents of each packet include a packet header and wherein the controller is configured to allocate the wireless bandwidth responsive to at least one field in the packet header.

46. (Previously Presented) The base station of claim 45, wherein said packet-centric protocol comprises transmission control protocol/internet protocol.

47. (Previously Presented) The base station of claim 45, wherein said packet-centric protocol comprises user datagram protocol/internet protocol.

48. (Previously Presented) The base station of claim 45 wherein said controller comprises a MAC layer.

49. (Previously Presented) The base station of claim 48 wherein said MAC layer allocates said shared wireless bandwidth among said subscriber CPE stations so as to optimize end-user quality of service.

50. (Previously Presented) The base station of claim 48, wherein said MAC layer determines the allocation of wireless bandwidth and base station resources based, at least in part, on at least one of a packet header contents and a packet payload contents.

51. (Previously Presented) The base station of claim 45 wherein said communication medium comprises a radio frequency (RF) communication link.

52. (Previously Presented) The base station of claim 51, wherein said RF communication link uses at least one of:

- time division multiple access;
- time division multiple access / time division duplex access;
- code division multiple access; and/or
- frequency division multiple access.

53. (Previously Presented) The base station of claim 45, wherein said first data network comprises at least one of:

- a wireline network;
- a wireless network;
- a local area network; and/or
- a wide area network.

54. (New) The method of claim 13 wherein the packets to be transmitted include packet-switched voice packets and data communication packets.

55. (New) The base station of claim 45 wherein the packets to be transmitted include packet-switched voice packets and data communication packets.

REMARKS

After entry of this amendment, claims 13-20 and 45-55 are pending. In the present Office Action, claims 13-20 and 45-53 were rejected under the judicially-created doctrine of obviousness-type double patenting over the parent patent U.S. Patent No. 6,862,622 ("Parent Patent"). Claims 13-20 and 45-53 were rejected under 35 U.S.C. § 102(e) as being anticipated by Chuah, U.S. Patent No. 6,115,390 ("Chuah"). Applicant respectfully traverses these rejections and requests reconsideration.

Art Rejection

Applicant respectfully submits that claims 13-20 and 45-55 recite combinations of features not taught or suggested in the cited art. For example, claim 13 recites a combination of features including: "allocating said wireless bandwidth and system resources based on contents of packets to be communicated over said wireless bandwidth, wherein the contents of each packet include a packet header and wherein the allocating is responsive to at least one field in the packet header".

The Office Action asserts that Chuah teaches the above highlighted features, citing the abstract and col. 10, lines 8-33. However, the abstract of Chuah describes allocating bandwidth based on remote host requests for minislots: "remote hosts in a wireless network ... make bandwidth requests to the base station via uplink frames partitioned into one or more reservation minislots, [and] a collision occurs where two or more remotes have transmitted a request in the same minislot". Thus, no contents of the packets are used to allocate bandwidth. Instead, bandwidth is allocated based on which hosts make requests for minislots. If no conflicts occur, the requested minislots are allocated. The abstract also teaches "The number of reservation minislots available in any particular uplink frame may be dynamically changed based on the percentage of idle minislots and the total uplink queue length." Thus, while the amount of bandwidth available may be changed, the change is based on idle minislots and the size of queues, not based on the contents of packets.

At col. 10, lines 8-33, Chuah teaches dynamic bandwidth allocation and the piggybacking of additional reservation requests with current packet transmissions. With regard to bandwidth

allocation, Chuah teaches that "The base station schedules transmission of its uplink and downlink traffic and allocates bandwidth dynamically, based on traffic characteristics and QoS requirements as well as the current bandwidth needs of all supported hosts. A service tag is used to schedule the transmission order of the packets from the hosts, with the current queue information of all wired hosts being always known to the base station and the queue information of the remotes being sent to the base station through reservation requests. Reservation requests are either piggybacked on an already-scheduled uplink transmission or sent to the base station via the request access channel in contention mode." (Chuah, col. 10, lines 8-19). Thus, no packet contents are used in the allocation of bandwidth. Instead, QoS requirements, traffic characteristics, queue depth, and remote reservation requests are used.

With regard to claim 20, the Office Action cited col. 19, lines 20-67 to allegedly teach allocating based on packet contents such as header and payload data. Applicant respectfully disagrees. The cited section teaches fragmentation and reassembly of packets that exceed the maximum payload size. However, this operation occurs at the wireless modem, after bandwidth has already been allocated: "A fragmentation/reassembly mechanism has been defined in order to allow for fragment retransmission. The AP and wireless modem will generally fragment the MAC layer service data unit (SDU) if it exceeds the maximum payload size or if it exceeds the remaining space available in a downlink or uplink frame. Alternatively, a fragmentation threshold may be defined beyond which the MAC SDU will be fragmented." (Chuah, col. 19, lines 20-27). This low-level data transport functionality has nothing to do with allocating bandwidth to packets.

For at least the above stated reasons, Applicant respectfully submits that claim 13 is patentable over the cited art. Claims 14-20 and 54 depend from claim 13 and recite additional combinations of features not taught or suggested in the cited art.

Claim 45 recites a combination of features including: "a controller configured to allocate wireless bandwidth and base station resources based on contents of packets to be communicated from and to said first data network with one or more subscriber CPE stations over a shared wireless bandwidth using said packet-centric protocol, wherein the contents of each packet include a packet header and wherein the controller is configured to allocate the wireless bandwidth responsive to at least one field in the packet header". Essentially the same teachings

of Chuah highlighted above are alleged to teach the above highlighted features of claim 45. Applicant respectfully submits that Chuah does not teach the above highlighted features of claim 45, either. Accordingly, claim 45 is patentable over the cited art. Claims 46-53 and 55 depend from claim 45 and recite additional combinations of features not taught or suggested in the cited art.

Double Patenting Rejection

Applicant respectfully disagrees with the obviousness-type double patenting rejection. Specifically, the Office Action asserts that the scope of claim 13, e.g., is identical to that of claim 1 of the Parent Patent except that claim 13 is a method and claim 1 is a system. Applicant respectfully disagrees with this analysis. Nevertheless, Applicant files herewith a Terminal Disclaimer obviating the rejection. Applicant notes that the filing of a Terminal Disclaimer to obviate an obviousness-type double patenting rejection is not an admission of the propriety of the rejection (see MPEP 804.02(II)).

Claim Objection

Claim 17 was objected to for lacking a punctuation mark after "access method including at least one of". Applicant has amended claim 17 to insert a colon, and respectfully submits that the objection is addressed.

CONCLUSION

The present response is believed to be a complete response to the issues raised in the office action. If the Examiner has any questions, comments or suggestions, the undersigned earnestly requests a telephone conference.

If any extension of time (under 37 C.F.R. § 1.136) is necessary to prevent the above-referenced application from becoming abandoned, Applicant hereby petitions for such extension.

The Commissioner is authorized to charge any fees that may be required, or credit any overpayment, to Meyertons, Hood, Kivlin, Kowert & Goetzel, P.C. Deposit Account No. 501505/6057-40815/LJM.

Respectfully submitted,

Date: November 19, 2007

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